

WHAT IS CLAIMED IS:

1. A method for atomizing a liquid medium using a device as claimed in Claim 1, wherein

the liquid medium is supplied to the internal volume of the device under pressure, the nozzle body is put on ground potential, and a high voltage is applied to the high-voltage electrode, said high voltage bringing about an electrostatic charging of the liquid medium in a magnitude that results in the bursting of the drops discharged from the nozzle opening(s) due to the electrostatic charge.

2. The method as claimed in Claim 1, wherein
a pulsed high voltage with variable duty cycle and/or variable high voltage is applied to the high-voltage electrode, whereby the atomization quality is influenced by changing the duty cycle of the high voltage.

3. The method as claimed in Claim 2, wherein
the duty cycle is increased with a reduction of the pressure of the liquid medium, and is reduced when the pressure of the liquid medium is increased.

4. The method as claimed in Claim 2 for atomizing liquid fuel in the combustor of a gas turbine, wherein
during the start-up or partial load operation of the gas turbine, a higher duty cycle is set than during full load operation of the gas turbine.

5. The method as claimed in Claim 1 for atomizing liquid fuel in the combustor of a gas turbine, wherein
the atomization quality during the partial load operation of the gas turbine is influenced by changing the high voltage.